

tgcatgcacg ggccgttgtc ctccatgcc cagcagtgc agtcacttg gggaccttga 1740
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 agtcgtggc gcaaccccttggcaggat tggctcttgc ccccttagaga tgccattttgt 1860
 gggcgcgtcc agtgcacagc aggtgatggc cagcctctgc tggctccat ccgggatcta 1920
 ctctggage caaatatgtg taatgtggact gagctgaact gcagctgggt gcacccgtac 1980
 ctggcgttg atgtggcca gcccctctg acttcgtctg gacagcttg tgcccttgc 2040
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<210> 2
 <211> 655
 <212> PRT
 <213> Homo sapiens

<400> 2
 Met Arg Leu Ala Leu Leu Trp Ala Leu Gly Leu Leu Gly Ala Gly Ser
 1 5 10 15
 Pro Leu Pro Ser Trp Pro Leu Pro Asn Ile Ala Leu Leu Ser Ile Pro
 20 25 30
 Ser Val Leu Ser Trp Gly Val Leu Gly Pro Ala Gly Gly Thr Glu Glu
 35 40 45
 Gln Gln Ala Glu Ser Glu Lys Ala Pro Arg Glu Pro Leu Glu Pro Gln
 50 55 60
 Val Leu Gln Asp Asp Leu Pro Ile Ser Leu Lys Val Leu Gln Thr
 65 70 75 80
 Ser Leu Pro Glu Pro Leu Arg Ile Lys Leu Glu Leu Asp Gly Asp Ser
 85 90 95
 His Ile Leu Glu Leu Leu Gln Asn Arg Glu Leu Val Pro Gly Arg Pro
 100 105 110
 Thr Leu Val Trp Tyr Gln Pro Asp Gly Thr Arg Val Val Ser Glu Gly
 115 120 125
 His Thr Leu Glu Asn Cys Cys Tyr Gln Gly Arg Val Arg Gly Tyr Ala
 130 135 140
 Gly Ser Trp Val Ser Ile Cys Thr Cys Ser Gly Leu Arg Gly Leu Val
 145 150 155 160
 Val Leu Thr Pro Glu Arg Ser Tyr Thr Leu Glu Gln Gly Pro Gly Asp
 165 170 175
 Leu Gln Gly Pro Pro Ile Ile Ser Arg Ile Gln Asp Leu His Leu Pro
 180 185 190
 Gly His Thr Cys Ala Leu Ser Trp Arg Glu Ser Val His Thr Gln Thr
 195 200 205
 Pro Pro Glu His Pro Leu Gly Gln Arg His Ile Arg Arg Arg Arg Asp
 210 215 220

Val Val Thr Glu Thr Lys Thr Val Glu Leu Val Ile Val Ala Asp His
 225 230 235 240
 Ser Glu Ala Gln Lys Tyr Arg Asp Phe Gln His Leu Leu Asn Arg Thr
 245 250 255
 Leu Glu Val Ala Leu Leu Leu Asp Thr Phe Phe Arg Pro Leu Asn Val
 260 265 270
 Arg Val Ala Leu Val Gly Leu Glu Ala Trp Thr Gln Arg Asp Leu Val
 275 280 285
 Glu Ile Ser Pro Asn Pro Ala Val Thr Leu Glu Asn Phe Leu His Trp
 290 295 300
 Arg Arg Ala His Leu Leu Pro Arg Leu Pro His Asp Ser Ala Gln Leu
 305 310 315 320
 Val Thr Gly Thr Ser Phe Ser Gly Pro Thr Val Gly Met Ala Ile Gln
 325 330 335
 Asn Ser Ile Cys Ser Pro Asp Phe Ser Gly Gly Val Asn Met Asp His
 340 345 350
 Ser Thr Ser Ile Leu Gly Val Ala Ser Ser Ile Ala His Glu Leu Gly
 355 360 365
 His Ser Leu Gly Leu Asp His Asp Leu Pro Gly Asn Ser Cys Pro Cys
 370 375 380
 Pro Gly Pro Ala Pro Ala Lys Thr Cys Ile Met Glu Ala Ser Thr Asp
 385 390 395 400
 Phe Leu Pro Gly Leu Asn Phe Ser Asn Cys Ser Arg Arg Ala Leu Glu
 405 410 415
 Lys Ala Leu Leu Asp Gly Met Gly Ser Cys Leu Phe Glu Arg Leu Pro
 420 425 430
 Ser Leu Pro Pro Met Ala Ala Phe Cys Gly Asn Met Phe Val Glu Pro
 435 440 445
 Gly Glu Gln Cys Asp Cys Gly Phe Leu Asp Asp Cys Val Asp Pro Cys
 450 455 460
 Cys Asp Ser Leu Thr Cys Gln Leu Arg Pro Gly Ala Gln Cys Ala Ser
 465 470 475 480
 Asp Gly Pro Cys Cys Gln Asn Cys Gln Leu Arg Pro Ser Gly Trp Gln
 485 490 495
 Cys Arg Pro Thr Arg Gly Asp Cys Asp Leu Pro Glu Phe Cys Pro Gly
 500 505 510
 Asp Ser Ser Gln Cys Pro Pro Asp Val Ser Leu Gly Asp Gly Glu Pro
 515 520 525
 Cys Ala Gly Gly Gln Ala Val Cys Met His Gly Arg Cys Ala Ser Tyr
 530 535 540
 Ala Gln Gln Cys Gln Ser Leu Trp Gly Pro Gly Ala Gln Pro Ala Ala
 545 550 555 560
 Pro Leu Cys Leu Gln Thr Ala Asn Thr Arg Gly Asn Ala Phe Gly Ser
 565 570 575
 Cys Gly Arg Asn Pro Ser Gly Ser Tyr Val Ser Cys Thr Pro Arg Asp
 580 585 590 595
 Ala Ile Cys Gly Gln Leu Gln Cys Gln Thr Gly Arg Thr Gln Pro Leu
 595 600 605
 Leu Gly Ser Ile Arg Asp Leu Leu Trp Glu Thr Ile Asp Val Asn Gly
 610 615 620
 Thr Glu Leu Asn Cys Ser Trp Val His Leu Asp Leu Gly Ser Asp Val
 625 630 635 640
 Ala Gln Pro Leu Leu Thr Leu Pro Gly Thr Ala Cys Gly Pro Gly Leu
 645 650 655
 Val Cys Ile Asp His Arg Cys Gln Arg Val Asp Leu Leu Gly Ala Gln
 660 665 670

Glu	Cys	Arg	Ser	Lys	Cys	His	Gly	His	Gly	Val	Cys	Asp	Ser	Asn	Arg
675						680						685			
His	Cys	Tyr	Cys	Glu	Glu	Gly	Trp	Ala	Pro	Pro	Asp	Cys	Thr	Thr	Gln
690						695						700			
Leu	Lys	Ala	Thr	Ser	Ser	Leu	Thr	Thr	Gly	Leu	Leu	Leu	Ser	Leu	Leu
705						710				715					720
Val	Leu	Leu	Val	Leu	Val	Met	Leu	Gly	Ala	Ser	Tyr	Trp	Tyr	Arg	Ala
						725				730					735
Arg	Leu	His	Gln	Arg	Leu	Cys	Gln	Leu	Lys	Gly	Pro	Thr	Cys	Gln	Tyr
					740				745						750
Arg	Ala	Ala	Gln	Ser	Gly	Pro	Ser	Glu	Arg	Pro	Gly	Pro	Pro	Gln	Arg
					755				760						765
Ala	Leu	Leu	Ala	Arg	Gly	Thr	Lys	Ala	Ser	Ala	Leu	Ser	Phe	Pro	Ala
					770				775						780
Pro	Pro	Ser	Arg	Pro	Leu	Pro	Pro	Asp	Pro	Val	Ser	Lys	Arg	Leu	Gln
785					790					795					800
Ser	Gln	Gly	Pro	Ala	Lys	Pro	Pro	Pro	Arg	Lys	Pro	Leu	Pro	Ala	
					805					810					815
Asp	Pro	Gln	Gly	Arg	Cys	Pro	Ser	Gly	Asp	Leu	Pro	Gly	Pro	Gly	Ala
					820					825					830
Gly	Ile	Pro	Pro	Leu	Val	Val	Pro	Ser	Arg	Pro	Ala	Pro	Pro	Pro	Pro
					835					840					845
Thr	Val	Ser	Ser	Leu	Tyr	Leu									
					850					855					

<210> 3
<211> 17138
<212> DNA
<213> *Homo sapiens*

```
<220>
<221> misc_feature
<222> (1)...(17138)
<223> n = A,T,C or G
```


<210> 4
<211> 814
<212> PRT
<213> *Homo sapiens*

```
<220>
<221> VARIANT
<222> (1)...(814)
<223> Xaa = Any Amino Acid
```

```

<400> 4
Met Arg Leu Ala Leu Leu Trp Ala Leu Gly Leu Leu Gly Ala Gly Ser
      1           5           10          15
Pro Leu Pro Ser Trp Pro Leu Pro Asn Ile Gly Gly Thr Glu Glu Gln
      20          25          30

```

Gln Ala Glu Ser Glu Lys Ala Pro Arg Glu Pro Leu Glu Pro Gln Val
 35 40 45
 Leu Gln Asp Asp Leu Pro Ile Ser Leu Lys Lys Val Leu Gln Thr Ser
 50 55 60
 Leu Pro Glu Pro Leu Arg Ile Lys Leu Glu Leu Asp Gly Asp Ser His
 65 70 75 80
 Ile Leu Glu Leu Leu Gln Asn Arg Glu Leu Val Pro Gly Arg Pro Thr
 85 90 95
 Leu Val Trp Tyr Gln Pro Asp Gly Thr Arg Val Val Ser Glu Gly His
 100 105 110
 Thr Leu Glu Asn Cys Cys Tyr Gln Gly Arg Val Arg Gly Tyr Ala Gly
 115 120 125
 Ser Trp Val Ser Ile Cys Thr Cys Ser Gly Leu Arg Gly Leu Val Val
 130 135 140
 Leu Thr Pro Glu Arg Ser Tyr Thr Leu Glu Gln Gly Pro Gly Asp Leu
 145 150 155 160
 Gln Gly Pro Pro Ile Ile Ser Arg Ile Gln Asp Leu His Leu Pro Gly
 165 170 175
 His Thr Cys Ala Leu Ser Trp Arg Glu Ser Val His Thr Gln Thr Pro
 180 185 190
 Pro Glu His Pro Leu Gly Gln Arg His Ile Arg Arg Arg Arg Asp Val
 195 200 205
 Val Thr Glu Thr Lys Thr Val Glu Leu Val Ile Val Ala Asp His Ser
 210 215 220
 Glu Ala Gln Lys Tyr Arg Asp Phe Gln His Leu Leu Asn Arg Thr Leu
 225 230 235 240
 Glu Val Ala Leu Leu Leu Asp Thr Phe Phe Arg Pro Leu Asn Val Arg
 245 250 255
 Val Ala Leu Val Gly Leu Glu Ala Trp Thr Gln Arg Asp Leu Val Glu
 260 265 270
 Ile Ser Pro Asn Pro Ala Val Thr Leu Glu Asn Phe Leu His Trp Arg
 275 280 285
 Arg Ala His Leu Leu Pro Arg Leu Pro His Asp Ser Ala Gln Leu Val
 290 295 300
 Thr Gly Thr Ser Phe Ser Gly Pro Thr Val Gly Met Ala Ile Gln Asn
 305 310 315 320
 Ser Ile Cys Ser Pro Asp Phe Ser Gly Gly Val Asn Met Asp His Ser
 325 330 335
 Thr Ser Ile Leu Gly Val Ala Ser Ser Ile Ala His Glu Leu Gly His
 340 345 350
 Ser Leu Gly Leu Asp His Asp Leu Pro Gly Asn Ser Cys Pro Cys Pro
 355 360 365
 Gly Pro Ala Pro Ala Lys Thr Cys Ile Met Glu Ala Ser Thr Asp Phe
 370 375 380
 Leu Pro Gly Leu Asn Phe Ser Asn Cys Ser Arg Arg Ala Leu Glu Lys
 385 390 395 400
 Ala Leu Leu Asp Gly Met Gly Ser Cys Leu Phe Glu Arg Leu Pro Ser
 405 410 415
 Leu Pro Pro Met Ala Ala Phe Cys Gly Asn Met Phe Val Glu Pro Gly
 420 425 430
 Glu Gln Cys Asp Cys Gly Phe Leu Asp Asp Cys Val Asp Pro Cys Cys
 435 440 445
 Asp Ser Leu Thr Cys Gln Leu Arg Pro Gly Ala Gln Cys Ala Ser Asp
 450 455 460
 Gly Pro Cys Cys Gln Asn Cys Gln Leu Arg Pro Ser Gly Trp Gln Cys
 465 470 475 480

Arg Pro Thr Arg Gly Asp Cys Asp Leu Pro Glu Phe Cys Pro Gly Asp
 485 490 495
 Ser Ser Gln Cys Pro Pro Asp Val Ser Leu Gly Asp Gly Glu Pro Cys
 500 505 510
 Ala Gly Gly Gln Ala Val Cys Met His Gly Arg Cys Ala Ser Tyr Ala
 515 520 525
 Gln Gln Cys Gln Ser Leu Trp Gly Pro Gly Ala Gln Pro Ala Ala Pro
 530 535 540
 Leu Cys Leu Gln Thr Ala Asn Thr Arg Gly Asn Ala Phe Gly Ser Cys
 545 550 555 560
 Gly Arg Asn Pro Ser Gly Ser Tyr Val Ser Cys Thr Pro Arg Asp Ala
 565 570 575
 Ile Cys Gly Gln Leu Gln Cys Gln Thr Gly Arg Thr Gln Pro Leu Leu
 580 585 590
 Gly Ser Ile Arg Asp Leu Leu Trp Glu Thr Ile Asp Val Asn Gly Thr
 595 600 605
 Glu Leu Asn Cys Ser Trp Val His Leu Asp Leu Gly Ser Asp Val Ala
 610 615 620
 Gln Pro Leu Leu Thr Leu Pro Gly Thr Ala Cys Gly Pro Gly Leu Val
 625 630 635 640
 Cys Ile Asp His Arg Cys Gln Arg Val Asp Leu Leu Gly Ala Gln Glu
 645 650 655
 Cys Arg Ser Lys Cys His Gly His Gly Val Cys Asp Ser Asn Arg His
 660 665 670
 Cys Tyr Cys Glu Glu Gly Trp Ala Pro Pro Asp Cys Thr Thr Gln Leu
 675 680 685
 Lys Ala Thr Ser Ser Leu Thr Gly Leu Leu Leu Ser Leu Leu Val
 690 695 700
 Leu Leu Val Leu Val Met Leu Gly Ala Ser Tyr Trp Tyr Arg Ala Arg
 705 710 715 720
 Leu Xaa Gln Arg Leu Cys Gln Leu Lys Gly Pro Thr Cys Gln Tyr Arg
 725 730 735
 Ala Ala Gln Ser Gly Pro Ser Glu Arg Pro Gly Pro Pro Gln Arg Ala
 740 745 750
 Leu Leu Ala Arg Gly Thr Lys Ser Gln Gly Pro Ala Lys Pro Pro Pro
 755 760 765
 Pro Arg Lys Pro Leu Pro Ala Asp Pro Gln Gly Arg Cys Pro Ser Gly
 770 775 780
 Asp Leu Pro Gly Pro Gly Pro Gly Ile Pro Pro Leu Val Val Pro Ser
 785 790 795 800
 Arg Pro Ala Pro Pro Pro Pro Thr Val Ser Ser Leu Tyr Leu
 805 810